REMARKS

Applicants thank Examiner Yun for considering all of the Information Disclosure Statements submitted to date, for acknowledging Applicants' claim to foreign priority, and for indicating that the priority documents have been received.

Applicants also appreciate the Examiner's indication of allowable subject matter in Claims 2-4, 6, 8-11, 14, 15 and 18. Applicants kindly submit, however, that the remaining claims in this application are also allowable, for reasons given below.

With the amendment to Claim 17, the broadest claims in this case require that the refractive index member have a refractive index greater than 1 and not greater than 1.30. In part because of the refractive index, the present invention exhibits improved external efficiency. This aspect of the present invention is not taught anywhere in any of the cited references.

As noted in the attached Declaration (unexecuted- an executed version of same will be submitted shortly), it is generally known in the classical optic art that when light passes from a higher refractive index material into a lower refractive index material, not all of the light passes through. The reason for this is there exists a critical angle for the total reflection of light at the interface between the high- and low-refractive index materials. When the difference between the refractive indices of these materials increases, the amount of light reflected by the interface also increases. Based on this knowledge, as pointed out in the Declaration, one would conclude that the amount of light reflected by the interface would be *increased* if the refractive index of a member is as low as a range of 1.0 to 1.3 (and, for example, which is considerably lower compared to the refractive index of an electrically conductive transparent film made, for example, from ITO). The refractive index of ITO is

about 1.8 to 2.1, depending on how it is produced. Thus, as noted in the Declaration, one would expect that the amount of light withdrawn would be decreased given the substrate such as claimed.

In non-planar light emission devices such as LED's, it is typically desirable to increase the quantity of withdrawn light by providing a convex lens adjacent to the LED. Accordingly, it is heretofore desirable to use lens materials having as *large* a refractive index as possible. Thus, rather than striving to *reduce* the refractive index of the refractive index member adjacent to an electrically conductive transparent film, the skilled artisan has heretofore worked to *increase* the refractive index.

Surprisingly, however, the present invention, which requires a refractive index member having a very low refractive index -- greater than 1 and not greater than 1.30, exhibits greatly improved external efficiency. See, e.g., the examples and comparative examples set out in the present specification. None of the cited reference contain such a teaching. The present invention is thus neither anticipated nor made obvious by the cited references, and the rejections should be withdrawn as unsustainable.

The rejections based on Hora, Hunter et al., and Hinotani et al. are traversed. None of these references disclose or suggest the claimed invention.

The Office asserts that Hora discloses a refractive index member having a refractive index greater than 1 and not greater than 1.3. Applicants can find no such teaching in Hora. Applicants kindly request the Office to point out precisely where Hora teaches such a refractive index, or withdraw this ground or rejection.

Hora discloses a refractive index member (4) material: fluorine resin and an organic resin. As noted in the attached Declaration, the fluorine resin such as disclosed in Hora is

estimated to have a refractive index of 1.35 to 1.41; and the organic resin such as disclosed in Hora is estimated to have a refractive index of 1.39 to 1.57. These refractive indices are both well beyond the claimed range. Hora should thus be withdrawn as a reference.

The Office asserts that Hinotani et al. discloses a refractive index member (19) having a refractive index greater than 1 and not greater than 1.3. Again, Applicants can find no such teaching in Hinotani et al. Again, Applicants kindly request the Office to point out precisely where it finds support for such an assertion in Hinotani et al., or withdraw this reference as a ground of rejection.

Hinotani et al. does disclose silicon dioxide (SiO_2) as a material for its low refractive index member (19). As noted in the attached Declaration, it is generally known that silicon dioxide has a refractive index of about 1.45 to 1.48, and this is outside the range as claimed. Applicants kindly request the Examiner to withdraw Hinotani et al. as a reference, or provide some basis for the conclusion that Hinotani et al anticipates the claims.

Hunter et al., like Hora and Hinotani et al., is also completely silent as to the refractive index of its low refractive index member. Applicants kindly request that the rejections based on Hunter et al. be withdrawn as unsustainable.

Applicants will subject an executed version of the Declaration shortly.

For all of the reasons given above, the claims are not anticipated or made obvious by the cited references, and the art rejections should be withdrawn as unsustainable. An early and favorable indication of the same is earnestly solicited.

The rejection of Claim 12 is obviated by amendment. Applicants thank the Examiner for pointing out the typographical error.

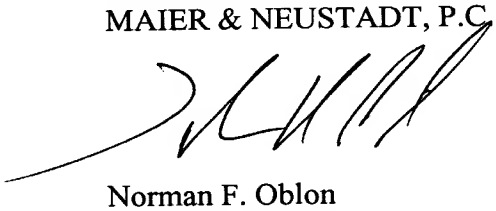
The drawings have been amended where appropriate to designate that which is old. Withdrawal of the drawing objection is warranted.

Applicants confirm their election of Group I, Claims 1-20 made with traverse. Applicants have canceled Claims 21 and 22 and reserve the right to pursue the non-elected subject matter in one or more divisional applications.

This application is now in condition for allowance. An early and favorable indication of same is kindly requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Norman F. Oblon
Attorney of Record
Registration No. 24,618

John K. Pike, Ph.D.
Registration No. 41,253

22850

(703) 413-3000
(703) 413-2220 (fax)

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